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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/500,897	02/09/2000	Shunpei Yamazaki	SEL 161	3195
7590	02/09/2006			
Mark J Murphy Cook Alex Mcfarron Manzo Cummings & Mehler LTD 200 West Adams Street Suite 2850 Chicago, IL 60606			EXAMINER MISLEH, JUSTIN P	
			ART UNIT	PAPER NUMBER
			2612	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/500,897

Applicant(s)

YAMAZAKI ET AL.

Examiner

Justin P. Misleh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 16 and 20 - 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 16 and 20 - 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>8-17-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to **Claims 1 – 16 and 20 – 31** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claims 1 – 16 and 20 – 31** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4. Independent Claims 1, 5, 9, and 13 and their respective dependent claims appear to be directed towards features of Applicant's invention disclosed in the Fifth (figures 7A and 7B), Sixth (figures 12A and 12B), and Seventh (figures 13A and 13B) Embodiments.

5. Applicant's Fifth Embodiment (see specification pages 11 and 12) is directed towards a viewfinder for a video camera having a display element (703-1). The display element (703-1) has a first substrate (703-1-1), a second substrate (703-1-2), and a display medium (703-1-3), wherein a liquid crystal is used as the display medium. A major feature of the embodiment is

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that the surface of one of the substrates (703-1-2) of the display element on the light emitting side thereof has a spherical configuration and acts as a lens.

6. On the hand, Applicant's Sixth and Seventh Embodiments (see specification pages 12 – 18) are directed towards the fabrication of an EL (electroluminescence) display device for use in a viewfinder. The EL display device has a substrate (4010), an EL layer (4029) disposed on the substrate, and a cover member (6000), wherein a passivation film (6003), an adhesive filler (6004), and the cover member (6000) are formed such that they cover the EL layer (4029). The filler (6004) serves as an adhesive to bond the cover member (6000); although it is not specified which exact components of the display device the filler (6004) bonds the cover member (6000) to. Furthermore, the cover member (6000) is disclosed as comprising one of a plurality of elements including a glass plate or stainless steel plate and that the cover member (6000) must be transmissible depending on the light-emitting direction of the EL element. The specification does not disclose whether or not the cover member (6000) functions as a lens. Finally, in the embodiments of figures 14 and 16, the EL display element is shown to emit light in two different directions.

7. The specification has not enabled one with ordinary skill in the art to combine the features of the Fifth (figures 7A and 7B), Sixth (figures 12A and 12B), and Seventh (figures 13A and 13B) Embodiments without undue experimentation. In other words:

The display device in figure 7A and 7B has two substrates on either side of a liquid crystal display medium, wherein one of the substrates acts as a lens, has a spherical surface, and transmits light. The display device in figures 7A and 7B has no disclosed

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cover member or adhesive bonding, nor is the fabrication of such a display medium ever discussed.

The display device in figures 12A, 12B, 13A, and 13B has a cover member and a substrate on either side of display circuitry, wherein none of the cover member and substrate acts a lens or has spherical surface. However, the display device permits light transmission through either the cover member or the substrate.

The ONLY disclosed relationship between the Fifth, Sixth, and Seventh Embodiments is that each of the display devices may be respectively used in a viewfinder of a video camera.

8. For the purposes of examination, the claims will be interpreted in accordance with Applicant's invention relating to the EL display element, as disclosed in figures 12 – 17, in addition to Applicant's previous claim presentations.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1 – 16 and 20 – 27** are rejected under 35 U.S.C. 102(e) as being anticipated by Takahara (US 6 219 113 B1).

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11. For **Claim 1**, Takahara discloses, as shown in figures 2a, 2b, 11, 12, 64 – 69, 96 – 105, and 218 – 225 and as stated in columns 3 (lines 33 – 41), 4 (lines 1 – 14), 54 – 57, 122, and 124, a electroluminescence display device (see figures 218 – 225) comprising:

a substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a);

an LCD display element (21 and 22 from figures 2a and 2b) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a); and

a lens (microlens 641) formed over the LCD display element (21 and 22 from figures 2a and 2b), wherein the lens (microlens 641) has a spherical surface to which the LCD display element emits a light (see figures 65, 66a, 97, 102, and 111) and

wherein the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a) and the lens (microlens 641) are bonded with an adhesive (see explanation below).

While Takahara discloses the viewfinder (see figures 218 – 225) with an LCD display panel (22), Takahara also discloses, as stated in columns 23 (lines 23 – 33), 30 (lines 51 – 65), 58 (lines 37 – 42), 100 (lines 44 – 58), 126 (line 60) – 127 (line 4), and 130 (lines 17 – 34), that the LCD display may be replaced by an organic electroluminescence display element.

As stated in column 54 (lines 44 – 55) and 56 (lines 5 – 15), the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a) and the lens (microlens 641) are bonded with an acrylic resin (optical coupling agent 691). Acrylic resin, as defined by technical dictionaries is well-known adhesive.

12. For **Claim 5**, Takahara discloses, as shown in figures 2a, 2b, 11, 12, 64 – 69, 96 – 105, and 218 – 225 and as stated in columns 3 (lines 33 – 41), 4 (lines 1 – 14), 54 – 57, 122, and 124, an electroluminescence display device (see figures 218 – 225) comprising:

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a substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a);
an LCD display element (21 and 22 from figures 2a and 2b) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a); and
a lens (microlens 641) formed over the LCD display element (21 and 22 from figures 2a and 2b), wherein the lens (microlens 641) has a spherical surface to which the LCD display element emits a light (see figures 65, 66a, 97, 102, and 111), and
wherein the lens (microlens 641) magnifies an image of an object displayed by the LCD display element (see below for explanation).

While Takahara discloses the viewfinder (see figures 218 – 225) with an LCD display panel (22), Takahara also discloses, as stated in columns 23 (lines 23 – 33), 30 (lines 51 – 65), 58 (lines 37 – 42), 100 (lines 44 – 58), 126 (line 60) – 127 (line 4), and 130 (lines 17 – 34), that the LCD display may be replaced by an organic electroluminescence display element.

Furthermore, as stated in column 56 (lines 6 – 35), Takahara discloses adjusting focal distance of the microlens (641) according to various manufacturing techniques. The focal distance of the microlens (641) establishes the display area of the display – the shorter the focal distance, the larger the display area. The magnification factor of the image of an object can be found by dividing the actual focal distance of the microlens (641) by a focal distance of a standard microlens.

13. For **Claim 9**, Takahara discloses, as shown in figures 2a, 2b, 11, 12, 64 – 69, 96 – 105, and 218 – 225 and as stated in columns 3 (lines 33 – 41), 4 (lines 1 – 14), 54 – 57, 122, and 124, an electroluminescence display device (see figures 218 – 225) comprising:

a substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a);

an LCD display element (21 and 22 from figures 2a and 2b) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a); and

a lens (microlens 641) formed over the LCD display element (21 and 22 from figures 2a and 2b), wherein the lens (microlens 641) has a spherical surface to which the LCD display element emits a light (see figures 65, 66a, 97, 102, and 111), and

wherein the lens (microlens 641) magnifies an image of an object displayed by the LCD display element (see below for explanation) and projects the magnified image upon an of a user (see column 123, lines 1 – 16).

While Takahara discloses the viewfinder (see figures 218 – 225) with an LCD display panel (22), Takahara also discloses, as stated in columns 23 (lines 23 – 33), 30 (lines 51 – 65), 58 (lines 37 – 42), 100 (lines 44 – 58), 126 (line 60) – 127 (line 4), and 130 (lines 17 – 34), that the LCD display may be replaced by an organic electroluminescence display element.

Furthermore, as stated in column 56 (lines 6 – 35), Takahara discloses adjusting focal distance of the microlens (641) according to various manufacturing techniques. The focal distance of the microlens (641) establishes the display area of the display – the shorter the focal distance, the larger the display area. The magnification factor of the image of an object can be found by dividing the actual focal distance of the microlens (641) by a focal distance of a standard microlens.

14. For **Claim 13**, Takahara discloses, as shown in figures 2a, 2b, 11, 12, 64 – 69, 96 – 105, and 218 – 225 and as stated in columns 3 (lines 33 – 41), 4 (lines 1 – 14), 54 – 57, 122, and 124, a electroluminescence display device (see figures 218 – 225) comprising:

a substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a);

an LCD display element (21 and 22 from figures 2a and 2b) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a); and

a lens (microlens 641) formed over the LCD display element (21 and 22 from figures 2a and 2b), wherein the lens (microlens 641) has a spherical surface to which the LCD display element emits a light (see figures 65, 66a, 97, 102, and 111), and

wherein the lens (microlens 641) magnifies an image of an object displayed by the LCD display element (see below for explanation) and projects the magnified image upon an of a user (see column 123, lines 1 – 16).

While Takahara discloses the viewfinder (see figures 218 – 225) with an LCD display panel (22), Takahara also discloses, as stated in columns 23 (lines 23 – 33), 30 (lines 51 – 65), 58 (lines 37 – 42), 100 (lines 44 – 58), 126 (line 60) – 127 (line 4), and 130 (lines 17 – 34), that the LCD display may be replaced by an inorganic electroluminescence display element.

Furthermore, as stated in column 56 (lines 6 – 35), Takahara discloses adjusting focal distance of the microlens (641) according to various manufacturing techniques. The focal distance of the microlens (641) establishes the display area of the display – the shorter the focal distance, the larger the display area. The magnification factor of the image of an object can be found by dividing the actual focal distance of the microlens (641) by a focal distance of a standard microlens.

15. As for **Claims 2, 6, 10, and 14**, Takahara discloses, as shown in figures 45 wherein said organic electroluminescence display element comprises plural thin film transistors ($T_{11} - T_{33}$) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a).

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16. As for **Claims 3, 7, 11, and 15**, Takahara discloses, as shown in figures 54, 55, 119, and 124, wherein said organic electroluminescence display element comprises a pixel portion (T₁₁ – T₃₃) and a driver circuit (491 and 492) formed over the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a).

17. As for **Claims 4, 8, 12, and 16**, Takahara discloses, as stated in column 122 (lines 37 – 43), said viewfinder is incorporated into a camera selected from the group consisting of a video camera and a digital camera.

18. As for **Claims 20 – 23**, Takahara discloses, as shown in figures 64, 65, and 66 – 69, wherein the lens (microlens 641) has at least one spherical surface. The claim language is written broadly enough such that the lens is not required to have ONLY a single spherical surface, rather AT LEAST one spherical surface.

19. As for **Claims 24 – 27**, Takahara discloses, as shown in figures 64, 65, and 66 – 69, wherein the lens (microlens 641) acts a cover member. The lens (microlens 641) acts a cover member because it covers the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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21. **Claims 28 – 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahara (US 6 219 113 B1).

22. As for **Claims 28 – 31**, Takahara discloses, as shown in figures 64, 65, and 66 – 69, wherein the lens (microlens 641) acts a cover member, wherein the lens (microlens 641) acts a cover member because it covers the substrate (11 and 12 from figures 2a and 2b and 642 from figure 66a). Takahara does disclose wherein the cover member is at least a glass plate, which is one selected from the group of a glass, aluminum, stainless steel, FRP, PVF plate and Mylar, polyester, or acrylic film.

However, **Official Notice** (MPEP § 2144.03) is taken that both the concepts and advantages of providing a glass plate as a cover member for covering a substrate are well known and expected in the art. At the time the invention was made, it would have been obvious to one with ordinary skill in the art to have providing a glass plate as a cover member for covering a substrate for advantage that glass is durable, provides excellent optical quality, and can be laminated or toughened to provide additional strength.

Conclusion

23. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

24. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Justin P Misleh whose telephone number is 571.272.7313. The Examiner can normally be reached on Monday through Friday from 8:00 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ngoc Yen Vu can be reached on 571.272.7320. The fax phone number for the organization where this application or proceeding is assigned is 571.273.3000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
February 4, 2006


NGOC-YEN VU
PRIMARY EXAMINER